

## **REMARKS**

The specification has been amended to correct typographical errors. The amendments to the specification are fully supported by the application as filed, see, *e.g.*, page 14, lines 6-12, page 17, lines 8-17, and page 102, line 19 to page 108, line 12, and do not constitute new matter.

Claims 1-19 were pending in this application. Applicants note with appreciation the Examiner's statement that claims 1-3 are allowable over the prior art of record. Applicants also note with appreciation that the Examiner has stated that claims 7 and 8 would allowable if rewritten in independent format. In order to expedite prosecution of the application and without conceding to the propriety of any rejections, Applicants have canceled claims 7, 9, and 12 without prejudice to Applicants rights to pursue the subject matter of the canceled claims in a related application(s). Applicants have amended claims 2, 3, 4, 5, 11, 13-16, 18 and 19 and added new claims 20-28. In particular, Applicants have amended claim 5 to incorporate the limitation(s) from claim 7. The claim amendments are fully supported by the specification as filed, see, *e.g.*, page 14, lines 6-12, page 17, lines 8-17, page 20, lines 4-12, page 38, lines 23-25, page 44, lines 29-34, page 45, lines 11-25, page 49, line 9, and page 102, line 19 to page 108, line 12 and do not constitute new subject matter. Upon entry of this amendment, claims 1-6, 8, 11 and 13-28 will be pending and under examination.

Applicants respectfully request consideration of the foregoing amendments and the remarks made herein and entry of them into the record for the application.

### **1. THE REJECTION UNDER 35 U.S.C. § 102(b) SHOULD BE WITHDRAWN**

Claims 9, 10, and 13-18 are rejected under 35 U.S.C. § 102(b) as being anticipated by Beckmann et al., U.S. Patent No. 6,458,538 ("Beckmann"). In order to expedite prosecution of the application and without conceding to the propriety of the rejection, Applicants have canceled claims 9 and 10, without prejudice, and have amended claims 13-16, 18 and 19 so that they no longer depend from canceled claim 9 or 10. Accordingly, the rejection under 35 U.S.C. § 102(b) is moot and should be withdrawn.

**2. THE REJECTIONS UNDER 35 U.S.C. § 102/103  
SHOULD BE WITHDRAWN**

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Claims 4, 13 and 15-19 are rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Beckmann. The Examiner alleges that: (i) Beckmann “teach[es] a method of identifying a compound that modulates premature translation termination or non-sense-mediated mRNA decay ...”; and (ii) Beckmann teaches that the cell-free translation lysate used in Example II was prepared by the method disclosed by Jackson et al., 1983, Methods in Enzymology 96: 50-75 (“Jackson”), which teaches preparing a lysate in a chilled beaker that is in an ice bucket (*i.e.*, at about 0°C to about 10°C). Office Action at page 5. The Examiner concludes that the incubation of the cells at about 0°C to about 10°C is inherent to the method of Beckmann in light of the teaching present in Jackson. The Examiner also alleges that Beckmann teaches all of the limitations recited in claims 13 and 15-18. Further, the Examiner alleges that the premature stop codon contexts recited in claim 19 are inherent to Beckmann in that the stop codon must necessarily be followed by U, A, C or G. For the reasons below, this rejection cannot stand and should be withdrawn.

In order to anticipate the claimed invention, a single reference must teach each and every element of the claims. *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628 (Fed. Cir. 1987). A finding of obviousness requires a determination of the scope and content of the prior art, the level of ordinary skill in the art, the differences between the claimed subject matter and the prior art, and whether the differences are such that the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made. *Graham v. Deere*, 383 U.S. 1 (1996). According to a recent Supreme Court decision,

[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. ... [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed invention does. This is because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007).

Applicants have amended claim 4 to recite that the cell-free translation mixture is isolated from cells that have been incubated on ice at least 12 hours. As discussed in the example on pages 102 and 103, Applicants surprisingly found that incubating cells on ice for

12 to 24 hours before preparation of the translation extract improves the translation activity of the extract. Neither Beckmann nor Jackson teach or suggest incubating cells on ice for at least 12 hours. Beckmann states that the method in Jackson was followed to prepare a rabbit reticulocyte lysate. Jackson merely describes removing blood from the chest cavity of a rabbit and into a chilled beaker in an ice bucket. See Jackson at page 56, left col., first paragraph. There is no teaching or suggesting in Beckmann or Jackson that incubating cells on ice for at 12 hours before preparing a translation extract improves the translation activity of the extract. Therefore, Beckmann in light of Jackson does not anticipate 35 U.S.C. § 102(e) or, in the alternative, render obvious under 35 U.S.C. § 103(a) claim 4 or claims dependent therefrom. Accordingly, Applicants respectfully submit that the rejection cannot stand and should be withdrawn.

Claim 6 is rejected under 35 U.S.C. § 103 as being unpatentable over Beckmann as applied to claim 4 and in view of Kudlicki et al., 1992, Analytical Biochemistry 206(2): 389-393 ("Kudlicki"). The Examiner alleges that: (i) Beckmann teaches a method of identifying a compound that modulates premature translation termination or nonsense-mediated mRNA decay comprising all of the limitations recited in claim 6 except that the cell-extract is a S10 to S30 extract; and (ii) Kudlicki teaches a S30 cell extract. The Examiner concludes that it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to substitute the S30 extract of Kudlicki for the rabbit reticulocyte lysate taught by Beckmann. Neither Beckmann nor Kudlicki teach or suggest incubating cells on ice for at 12 hours before preparing a S10 to S30 cell-free extract. Accordingly, Applicants respectfully submit that the rejection cannot stand and should be withdrawn.

### **3. THE REJECTIONS UNDER 35 U.S.C. § 103 SHOULD BE WITHDRAWN**

Claims 5, 13 and 15-19 are rejected under 35 U.S.C. § 103 as being unpatentable over Beckmann in view of Kudlicki. Applicants have amended claim 5 to incorporate the limitation from objected to claim 7. In particular, claim 5 has been amended to recite that the cell-free translation mixture is a S12 cell-free extract. Accordingly, in view of the Examiner's statement on page 11 of the Office Action that claim 7 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claim, Applicants respectfully submit that amended claim 5 and claims dependent therefrom should be allowable.

Claims 11 and 12 are rejected under 35 U.S.C. § 103 as being unpatentable over Beckmann as applied to claims 4, 5, 9 and 10 above and further in view of Sabbadini, U.S. Patent No. 6,585,383 ("Sabbadini"). The Examiner alleges that: (i) Beckmann teaches a method of identifying a compound that modulates premature translation termination or nonsense-mediated mRNA decay comprising all of the limitations recited in claim 6 except determining the structure of the compound identified; and (ii) Sabbadini provides evidence that determining the structure of a candidate compound following its identification as useful for treating a particular disorder was well known at the time of the invention. The Examiner concludes that it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to modify the method of Beckmann so that a compound identified by the assays disclosed in Beckmann is further analyzed to determine its structure. For the reasons below, this rejection cannot stand and should be withdrawn.

Applicants have canceled claim 11, without prejudice. As discussed above, Applicants have also amended claims 4 and 5 from which claim 12 depends. In view of the amendments to claims 4 and 5 and the foregoing remarks, Applicants respectfully submit that the rejection cannot stand. Sabbadini does not cure any of the deficiencies in Beckmann. Sabbadini relates to methods for identifying sphingolipid-based therapeutics and uses of such therapeutics. Sabbadini does not teach or suggest a method of identifying a compound that modulates premature translation termination or nonsense-mediated mRNA decay. Accordingly, Applicants respectfully request the rejection be withdrawn.

### CONCLUSION

Applicants respectfully request that the above-made remarks and amendments be entered and made of record in the present application. If any issues remain in connection herewith, the Examiner is respectfully invited to telephone the undersigned to discuss the same. An early allowance is earnestly requested.

Respectfully submitted,

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